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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SIEMENS CORPORATION
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EXAMINER	
MASINICK, MICHAEL D	
ART UNIT	PAPER NUMBER
2128	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/535,720	BERNHARDT ET AL.	
	Examiner	Art Unit	
	Michael D. Masinick	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-32 and 35-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-32 and 35-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 27-32, 35-45 are pending in this application. This office action is in response to the amendment filed 6/4/2008.

Response to Amendment/Arguments

Applicant has amended claims 27 and 42 and cancelled claims 33, 34, and 46. All previous USC 102 rejections are removed and replaced below with USC 103 rejections.

Applicant first argues that the examiner has failed show a graphical representation of energy flow between at least two components in a process-engineering and/or production-engineering plant. In order for a piece of prior art to anticipate a claim it does not need to show ALL aspects of the claim when these aspects are presented as a list from which "at least one" element is selected. Specifically, claims 27 and 42 state that the directed relationships between components is accomplished based on at least one of the material flow, energy flow, and information flow between components and displaying a graphical representation of at least ONE of these relationships.

Examiner maintains that the combined Kodosky references (5,610,828 and 20030034998) clearly show a material flow chart graphically displayed to anticipate the claim.

Applicant has requested that the examiner furnish a reference showing the "common knowledge" providing two way traceablility. Showing this claim element is no longer necessary to reject the claims, but examiner has cited patent 4,829,445 which clearly shows a "handshake" between manufacturing stations for passing material and confirming (in a backward fashion) that the material was received (see column 5, line 50 through column 6, line 9).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 27-32 and 35-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,610,828 to Kodosky (referred to as Kodosky) as shown above in view of U.S. Patent Publication 20030034998, also to Kodosky (referred to as Kodosky2).

3. It is first noted that Kodosky uses LabVIEW software provided by National Instruments Corporation as the embodiment of their invention. Applicant is asked to review all Non-Patent Literature cited regarding the capabilities of the LabVIEW software when responding to this office action.

4. Referring to claim 27, Kodosky shows a system for the layout-oriented recording of control-relevant information, comprising: a first mechanism for graphically describing structures comprising components (Column 8, "Virtual Instrument" – examiner notes that this can refer to a software based module executed in LabVIEW or a control interface to a piece of hardware); a second mechanism for graphically establishing at least one directed relationship between the components (lines connect the virtual instruments – for example in Figure 22); and a third mechanism for specifying a control-relevant interconnection of the components depending on the

established relationships (Figures 56-58, for example, show interconnection of control functions using direct connections with data types (figure 58) or through arithmetic functions (Figure 56)); and wherein the process is conducted in a process-engineering and/or production-engineering plant (Column 2, lines 8-11 show collecting data which is evidence of use in an engineering field). Examiner has searched the specification to determine a specific meaning of the term "engineering plant" but none has been found. Therefor the examiner believes that the instruments collecting data such as voltage, distance, velocity, pressure, etc constitute an "engineering plant".

5. Kodosky does not specifically show wherein the establishment of the directed relationships between the components is accomplished based at least on a material flow between two components; and a graphical user interface configured to display at least a representation of the material flow between said at least two components.

6. The Patent Publication to Kodosky (Kodosky2) shows a system for creating configuration diagrams using LabView software similar to the Kodosky Patent. Paragraph 0018 of the publication shows that the communication between graphical objects can include material flow. Specifically the types of lines used to graphically connect the modules are specified by what material is being delivered.

7. It would have been obvious to one of ordinary skill at the time the invention was made to use the material flow concept in the LabVIEW system of Kodosky because this would allow for advanced tracking of materials throughout a production process and would allow a user to see from a distance what type of connection was present between the modules. These documents are obviously analogous art as they are by the same inventor and address the same problems.

8. Referring to claim 28, Kodosky shows wherein the components are physical components (Virtual instruments are programming interfaces to actually physical components).

9. Referring to claim 29, Kodosky shows wherein the control-relevant information is provided for recording for an automation system of a process-engineering and/or production-engineering plant (Column 43, lines 27-35).

10. Referring to claim 30, Kodosky shows wherein the components are embodied as types having type-dependent properties and data interfaces (Figure 58).

11. Referring to claim 31, Kodosky shows wherein the types are provided in a library (Figure 56).

12. Referring to claim 32, Kodosky shows wherein the interconnection of the components is accomplished via the data interfaces (Figure 56 is established for data communication between components).

13. Referring to claim 35, Kodosky shows wherein the establishment of the directed relationships between data interfaces of adjacent components is accomplished on the basis of a distance of the components from each other and by using information about the data interfaces. GPIB, which is well known as the main type of data transfer BUS for LabVIEW software (circa 1997) has "Total bus length may be up to 20m and the distance between devices may be up to 2m.". See GPIB – IEEE 488 document as a teaching reference. Kodosky shows the use of the GPIB interface in figure 58 and the use of data types in figure 56.

14. Referring to claim 36, Kodosky shows wherein type information, and/or entity information, and/or location information about the components is provided for use from the graphical layout (Figure 22 clearly shows type and entity information as displayed in the icon and the name underneath the icon for each entity).

15. Referring to claim 37, Kodosky shows a fourth mechanism for the layout-oriented adding of further properties to the components. The remainder of the images in Kodosky are used for modifying properties of both the data elements (string control - Figure 29) and the modules themselves (Figure 28).

16. Referring to claim 38, Kodosky shows wherein the components are combined into groups in a layout-oriented manner (Figures 79-83 show the concept of grouping functions).

17. Referring to claim 39. The system according to claim 38, further comprising a layout-oriented assignment of higher-order semantics to the groups (Figure 83 for example).

18. Referring to claim 40, Kodosky shows an assignment of elements for delimiting permitted value ranges, and/or attributes to components, and/or functional groups, and/or data interfaces (figure 109 shows the inputting of a valid range).

19. Referring to claim 41, Kodosky shows a layout-oriented generation of a network configuration for the communication of the components of a process-engineering and/or production-engineering plant (Column 2 and Figure 22).

20. Claims 42-45 are rejected using the same citations as provided above with respect to the claims to which they match.

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Masinick whose telephone number is (571) 272-3746. The examiner can normally be reached on Mon-Fri, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael D Masinick/
Primary Examiner, Art Unit 2128